International Journal of Ayurveda and Pharma Research

Research Article

A COMPARATIVE CLINICAL EVALUATION OF *JANU BASTI* WITH AND WITHOUT *UPNAHA* IN *JANU SANDHIGATA VATA* (OSTEOARTHRITIS OF KNEE)

Kiran Kumain[1]*, Ruchi Gupta[2], Prabhat Kumar[3], Ketan Mahajan[4]

*[1]PG Scholar, [2]Professor, [3]Assistant Professor, [4]Professor & HOD, Dept. of Panchakarma Patanjali Bhartiya Ayurvigvan Evum Anusandhan Sansthan, Haridwar, Uttarakhand, India.

ABSTRACT

Sandhigata Vata is the commonest form of musculoarticular disorder. It comes under eighty *Nanatmaja Vata Vyadhi* which mainly occurs due to *Dhatukshaya* in *Vriddhavasta. Janu Sandhi* is the major bearing joint in the body it's more subjected to wear and tear. *Sandhi* comes under *Madhayam Roga Marga* where *Vata* gets localized in *Sandhi* thereafter *Shleshaka Kapha Kshaya* and cause symptoms like *Shoola, Shotha, Akunchana Prasarana Vedana, Vatapurna Driti Sparsha* which limits everyday activities such as walking, sitting and standing etc thus making patient disable to do daily activities. In the *Shastras, Acharya* Sushruta has firstly given the method of treatment such as *Snehana, Upnaha, Agnikarma, Bandhana, Mardana. Upnaha* is a type of *Sagni* and *Niragni Swedana,* which relieves stiffness, heaviness, cold and induces sweat. *Janu Basti* is type of *Bahya Snehana* and *Swedana.* It provides strength to the knee muscle, joints, and improves function of knee joint. In this study 50 patients having the complaints of osteoarthritis were randomly divided into 2 groups in Group A patients were treated with *Janu Basti* with *Upnaha* and in Group B were treated with only *Janu Basti.* The data shows that *Janu Basti* along with *Upnaha* i.e., group A has provided better relief in the disease of *Sandhigata Vata.*

INTRODUCTION

Ayurveda is a way of living a disciplined life. It has certain rules and regulations that should be applicable for living a healthy and well organized life. It helps to not only balance both physical and mental health, but one can achieve quality of life. *Acharya Charaka* has explained *Sandhigata Vata* as *Sandhigata Anila* in *Vata Vyadhi Chikitsa*[1]*. Sandhigata Vata* is commonly seen in elderly population and escalates in related factor such as obesity, sedentary lifestyle and stressful lifestyle. All *Dhatus* being undergo *Kshaya* in 4 decade of life which leads *to Vata Prakopa* and prone to many diseases among them *Sandhigata Vata* is having is higher incidence it disables the person progressively. *Shleshaka Kapha* resides in *Sandhi* which provides nourishment to the joint and various types of rotational movement flexion and extension. *Sandhi* comes under *Madhayam Roga Marga* where *Vata* gets localized in *Sandhi* thereafter *Shleshaka Kapha Kshaya* and *Vata Prakopa* which affecting the locomotor system and person unable to do his daily activities.

Janu Sandhi can be correlated with osteoarthritis of knee. Osteoarthritis is the chronic degenerative joint disorder of multifactorial etiology characterized by loss of articular cartilage that cause disability joint pain, stiffness, reduced movement, swelling and crepitus. According to WHO 9.6% of men, 18% of women suffer from the symptomatic osteoarthritis worldwide. In India, joint disease with prevalence of 22%-39%[2] usually treated by combination of exercise, weight loss (if needed), medications such as NSAIDS and physiotherapy and last option is surgery which is quite expensive. Treatment of *Asthi* and *Sandhi Ashrit Vata Vyadhi* is *Snehana, Upnaha, Agnikarma, Bandhana, Mardana. Janu Basti* and *Upnaha* relieves the symptoms of *Sandhigata Vata.*

AIM AND OBJECTIVES

➢ To observe the effect of *Janu Basti* with *Upnaha* in *Janu Sandhigata Vata.*

➢ To observe the effect of only *Janu Basti* in *Janu Sandhigata Vata.*

➢ To compare the difference of results in the above treatment groups.

MATERIAL AND METHODS

Patients, suffering from knee Osteoarthritis were selected from O.P.D and I.P.D of Patanjali Bhartiya Ayurvigvan Avum Anusandhan, Sansthan (Haridwar)

Inclusion Criteria

➢ Patient between the age group of 30-70 years of either sex.

➢ Patient suffering from sign and symptoms of *Sandhigata vata* that is *Shoola, Shotha, Stambha* and *Atopa.*

➢ Morning stiffness lasting 20 minute or less.

➢ Patient with radiological finding of knee joint osteoarthritis.

➢ Patient fit for *janu Basti* and *Upnaha.*

Exclusion Criteria

➢ Osteoarthritis secondary to other conditions like trauma, fractures etc.

➢ *Rheumatoid arthritis* (Amavata).

➢ Gouty arthritis (*Vatarakta).*

➢ Complete loss of articular cartilage.

➢ Severe bursitis.

➢ Pregnant women and lactating women.

➢ Critical illness like Cardiac disease, Carcinoma, Tuberculosis, HIV, Trauma, Neurological disorder.

Grouping

Group A: Patients were treated by *Janu Basti* with *Sahcharadi oil* and *Upnaha* (*Vachadi Upnaha* once a day for 7 days[3].

Group B: Patients were only treated by *Janu Basti* with *Sahcharadi oil* once a day for 7 days[4].

CTRI/2023S/07/054932

Criteria for Assessment

Subjective Parameters: (for right & left knee joint)

Janu sandhi Shoola (Knee joint pain)

Pain Assessment Scale	Score
No pain	0
Mild pain on exertion	1
Constant pain on walk	2
Severe pain unable to walk	3

Janu Sandhi Stambha (Knee joint Stiffness)

Pain Assessment Scale	Score
No stiffness	0
Mild stiffness	1
Moderate stiffness	2
Severe difficulty in walking due to stiffness	3
Severe stiffness lasting 30 min	4

Janu Sandhi Shotha (Knee joint swelling)

Scale	Score
No swelling	0
Swelling present measurement (in cm)	1

Objective Parameter: (for right & left knee joint)

Janu sandhi Gati Asamarthatha (Restriction in Range of knee joint Movements)

Scale	Score
Normal flexion 135°	0
Lesser than 135° more than 100°	1
Lesser than 100° more than 75°	2
Lesser than 75°	3

Janu sandhi Atopa (Crepitus in Knee)

Scale	Score
No crepitus	0
Palpable crepitus	1

Audible Crepitus	2

***Janu sandhi Sparsha Akshamatva* (Tenderness in knee joint)**

Scale	Score
No Tenderness	0
Complains pain	1
Complains pain with winces of face	2
Patient winces the face and withdraws the part	3
Does not allow touch the joint	4

OBSERVATION AND RESULT

Total 50 patients were registered (Group A- 25 & Group B -25)

Demographic data

1. Age

In this study of 50 Patients, 36.00% of the total patients belonged to age group of 61-70 years, followed by 30.00% cases in age group of 41-50 years, 24.00% cases in Age group of 51-60 years, 10.00% cases in age group of 30-40 years.

Observation of study were in accordance with the findings of *Sandhigata vata* occurs between 61-70 age Group, its gradually occurs due to accumulation of *Vata Dosha* in *Sandhi* which may lead to *Sandhigata Vata.* Its commonly occurs in *Vriddhavasta*. As per modern medical science, the disease usually begins in the fourth or fifth decade.

2. Gender

In this study of 50 patients, maximum 70.00% patients were 35 female followed by 30.00% patients were 15 male. Female was most prone to this disease after menopause and may also due to increased responsibility towards hard works and day-to-day family stress may induce *Vata Prakopa*. As per modern medical science, According to W.H.O 9.6% of men, 18% of women suffer from Symptoms of Osteoarthritis.

3. Occupation

In this study of 50 patients, maximum i.e., 60.00% patients were house wife, followed by Service class and Business class (6.00%), worker (4.00%), Doctor (2.00%), Writer (2%), and Student (2%). It may be due to long time standing works or sitting work and disturb sleep, causing aggravation of *Vata* and leads to *Dhatukshaya.* Occupation affects onset and progression of any disease upto a large range. As per Ayurveda sedentary lifestyle leads to increases chances of *Sandhigata Vata*.

4. Religion

In this study of 50 patients, all religion were Hindu 100%. This might be due to fact that Hindu population is having predominant in this region.

5. Marital Status

In this study of 50 patients, maximum i.e., 94% patients were married and 6.00% patients were unmarried.

6. Education

In this study of 50 patients, maximum i.e., 30.00% patients were graduates, while 28.00% patients were High school and 10% patients were post graduates, 2% patient were PhD. Education of patient plays an important role in diagnosis and management of disease. It is easy for an educated individual to understand the severity and prognosis of this disease while uneducated individuals take pain killers and other NSAIDS drugs which leads to late diagnosis of the disease.

7. Economic Status

In this study of 50 patients, maximum i.e., 92.00% patients were from middle class background, while 8.00% patients were rich. It is due to sedentary lifestyle and long time of job hours.

8. Diet

In this study of 50 patients, maximum i.e., 58.00% patients were having vegetarian type of diet, while 42.00% patients were having mixed diet. It may be due to *Apathya Ahara* and *Vihara* like; *Atiruksha, Abhishyandi, Atibhashya, Ativayam Nidan* of *Vata Prakopa.*

9. Appetite

In this study of 50 patients, maximum i.e., 52.00% patients were having moderate appetite, while 34.00% patients having good appetite and 14.00% patients were having poor appetite.

10. Addiction

In this study of 50 patients, maximum i.e., 86.00% patients were addicted to tea, while 14.00% patients were addicted to coffee. It is a well-established fact that tea can negatively impact digestion and the absorption of essential nutrients. From an Ayurvedic perspective, tea is classified as *Viruddha Aahar*, particularly increase the *Vata Dosha* leading to *Vata* lodge in *Janu Sandhi* and cause *Shleshaka Kshaya,* which is associated with the onset of various diseases. While smoking is known to aggravate joint inflammation and contribute to disease development.

11. Sleep

In this study of 50 patients, maximum i.e., 26% patients were suffering from sound sleep, 24% were

experiencing disturbed sleep. The *Shoola* and *Stambha* associated with *Sandhigata vata* significantly disrupt the patient's ability to sleep, while stress serves as another major contributing factor.

12. Bowel Habits

Maximum i.e., 30% patients were having regular bowel habits, 19% were struggling with irregular bowel movements, 1% was constipated.

13. *Sharira Prakriti*

In this study of 50 patients, maximum 66% patients were *Vata-Kaphaja*, 26% were *Vata-Pittaja*, 6% were *Pitta-Kaphaja*, 2% were *Kapha-Pittaja*. This indicates that the disease is primarily influenced by the *Vata Doshas.* Patients with *Vata-Kaphaj* and *Vata Prakruti* are at an increased risk.

14. *Kostha*

In this study of 50 patients, maximum i.e., 60% patients were having *Madhyama Kostha*, while 20% patients were having *Mridu* and *Krura Kostha.* The majority of patients exhibited *Madhyam Koshtha,* which may be attributed to *Vata-Kapha Dosha*, the primary pathogenic *Dosha* implicated in *Sandhigata vata.*

15. *Ahar-Shakti*

In this study of 50 patients, maximum i.e., 54% patients were having *Madhyama Ahar-Shakti* while 28% patients were having *Pravara Ahar-Shakti* and 18% patients were having *Avara Ahar-Shakti.*

16. Onset of Disease

In this study of 50 patients, maximum i.e., 88% patients were gradually occurring the disease while 12% patients were insidious occurs. Mostly this disease gradually occurs due to degenerative changes in joints according to age.

17. Dietary Habits

In this study of 50 patients, maximum i.e., 52% patients were having habit of *Vishmashana,* while 26% patients were having habit of *Samasana*, 22% patients were having habit of *Adhyashana*. This is a major reason for production of disease. *Ahara* plays a vital role in growth and maintenance of body that is why *Acharya's* have mentioned it as a first *Upsthambha*

18. Psychological Condition

In this study of 50 patients, maximum i.e., 62% patients were tensile, 28% patients were normal, 8% patients were anxiety and 2% patient was depressed. This may be attributed to the anxious and depression caused by illness, as well as concerns regarding the prognosis and treatment options for the condition.

19. Nature of Work

In this study of 50 patients, maximum i.e., 58% patients were doing standing job, 34% patients were doing sitting job. 8% patients were doing heavy work. This might be due to standing jobs leads to extra pressure on knee which is a major cause of *Sandhigata Vata*.

20. Family History

In this study of 50 patients, maximum i.e., 80% patients were having no family history while 12% patients were having family history. This might its degenerative musculo-skeletal disorder which occurs by degenerative changes in joints

## Observation of Clinical Study and Results

Subjective and Objective Parameter

Group A		Mean		Median		SD		Wilcoxon W	P-Value	% Effect	Result
		BT	AT	BT	AT	BT	AT				
Shool	Right	4.36	0.96	4.00	1.00	1.08	0.73	-4.465[b]	0.0000080	77.98	Sig
	Left	4.32	0.96	4.00	1.00	1.14	0.73	-4.451[b]	0.0000085	77.78	Sig
Stambha	Right	1.80	0.44	2.00	0.00	0.91	0.65	-4.434[b]	0.0000093	75.56	Sig
	Left	1.64	0.44	1.00	0.00	0.81	0.65	-4.388[b]	0.0000114	73.17	Sig
Shotha	Right	0.64	0.03	1.00	0.00	0.49	0.20	-4.000[b]	0.0000633	95.31	Sig
	Left	0.56	0.03	1.00	0.00	0.51	0.20	-3.742[b]	0.0001828	94.64	Sig
Gati Asamartha	Right	1.08	0.60	1.00	1.00	0.40	0.50	-3.207[b]	0.0013406	44.44	Sig
	Left	0.80	0.40	1.00	0.00	0.50	0.50	-3.162[b]	0.0015654	50.00	Sig
Atopa	Right	1.76	0.72	2.00	1.00	0.44	0.46	-4.735[b]	0.0000022	59.09	Sig
	Left	1.72	0.76	2.00	1.00	0.46	0.44	-4.707[b]	0.0000025	55.81	Sig
Sparsha Akshamatva	Right	0.72	0.04	1.00	0.00	0.54	0.18	-4.025[b]	0.0000570	95.14	Sig
	Left	0.80	0.04	1.00	0.00	0.58	0.19	-4.066[b]	0.0000478	95.00	Sig
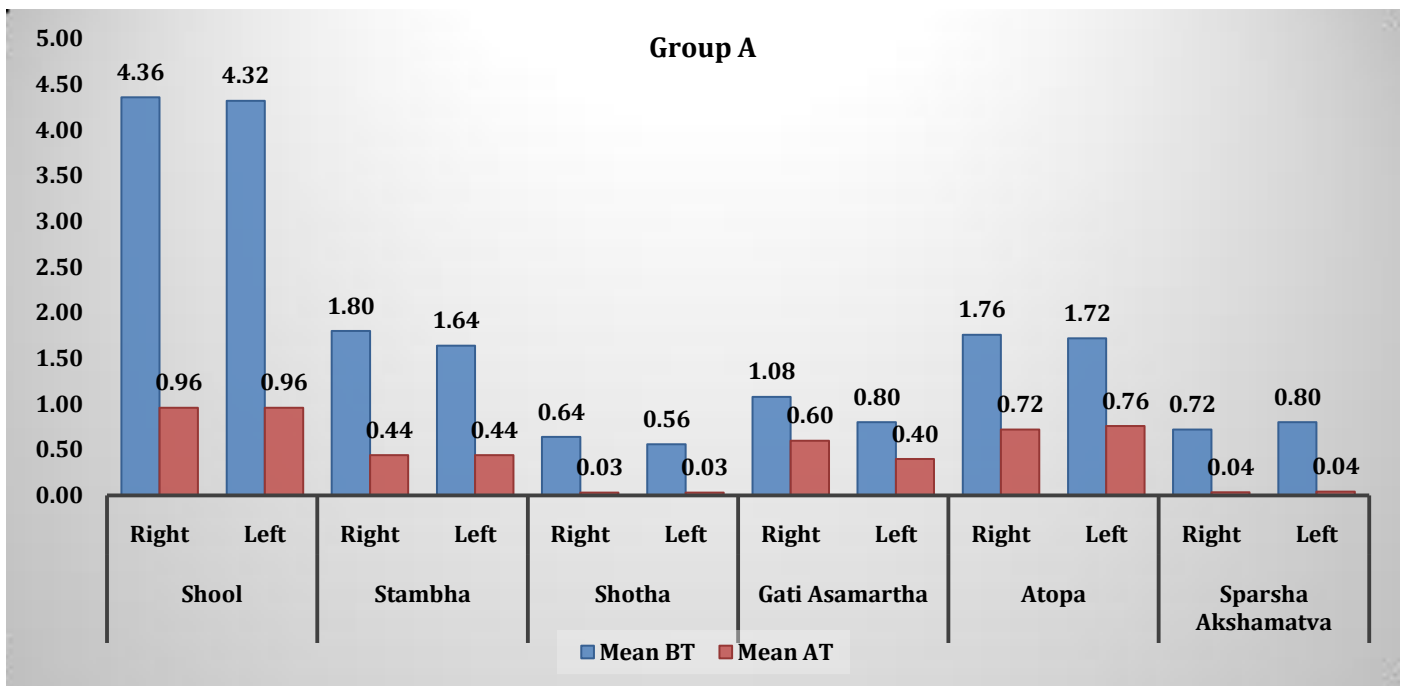
The total effect of therapy (*Janu Basti* and *Upnaha*) on symptoms of each patient was evaluated before and after completion of the treatment. The initial mean scores of 25 patients for pain (*Shool*) in right and left knee joint were 4.36 & 4.32 which were reduced to 0.96 & 0.96 after treatment. The total effect of treatment provided 77.98%. In symptom stiffness (*Stambha*) in right and left knee joint, the mean scores before treatment were 1.80 & 1.64 which were reduced to 0.44 after treatment. The total effect of treatment provided 75.56 & 73.16. In symptom swelling (*Shotha*) in right and left 0.64 & 0.56 knee joint, the mean scores before treatment were 0.64 & 0.56%which were reduced to 0.03 each after treatment. The total effect of treatment provided 95.31 & 94.64%. ROM (*Gati Asamartha*) in right and left knee joint, the mean scores before treatment were 1.08 & 0.80 which were reduced to 0.60 & 0.40 after treatment. The total effect of treatment provided 44.44% & 50.00%. The initial mean scores for crepitus (*Atop*) in right and left knee joint were 1.76 & 1.72 which were reduced to 0.72 & 0.76 after treatment. The total effect of treatment provided 59.09% & 55.81%. In symptom tenderness (*Sparsha Akshamatva*) in right and left knee joint the initial mean scores before treatment were 0.72 & 0.80 which were reduced to 0.04 each after treatment. The total effect of treatment provided 95.14% & 95.00%.

Group B		Mean		Median		SD		Wilcoxon W	P-Value	% Effect	Result
		BT	AT	BT	AT	BT	AT				
Shool	Right	4.88	3.84	5.00	4.00	1.45	1.46	-4.345[b]	0.0000139	21.31	Sig
	Left	4.40	3.60	4.00	4.00	1.41	1.38	-3.507[b]	0.0004530	18.18	Sig
Stambha	Right	2.52	1.56	3.00	2.00	0.82	0.87	-4.347[b]	0.0000138	38.10	Sig
	Left	2.04	1.44	2.00	1.00	1.10	0.87	-3.638[b]	0.0002747	29.41	Sig
Shotha	Right	0.80	0.40	1.00	0.00	0.41	0.50	-3.162[b]	0.0015654	50.00	Sig
	Left	0.72	0.36	1.00	0.00	0.46	0.49	-2.714[b]	0.0066556	50.00	Sig
Gati Asamartha	Right	1.04	0.76	1.00	1.00	0.20	0.44	-2.646[b]	0.0081510	26.92	Sig
	Left	1.00	0.60	1.00	1.00	0.41	0.50	-3.162[b]	0.0015654	40.00	Sig
Atopa	Right	1.56	1.00	2.00	1.00	0.58	0.50	-3.742[b]	0.0001828	35.90	Sig
	Left	1.56	1.00	2.00	1.00	0.58	0.50	-3.742[b]	0.0001828	35.90	Sig
Sparsha Akshamatva	Right	1.32	0.76	1.00	1.00	0.80	0.78	-3.742[b]	0.0001828	42.42	Sig
	Left	1.12	0.68	1.00	1.00	0.73	0.75	-2.840[b]	0.0045087	39.29	Sig
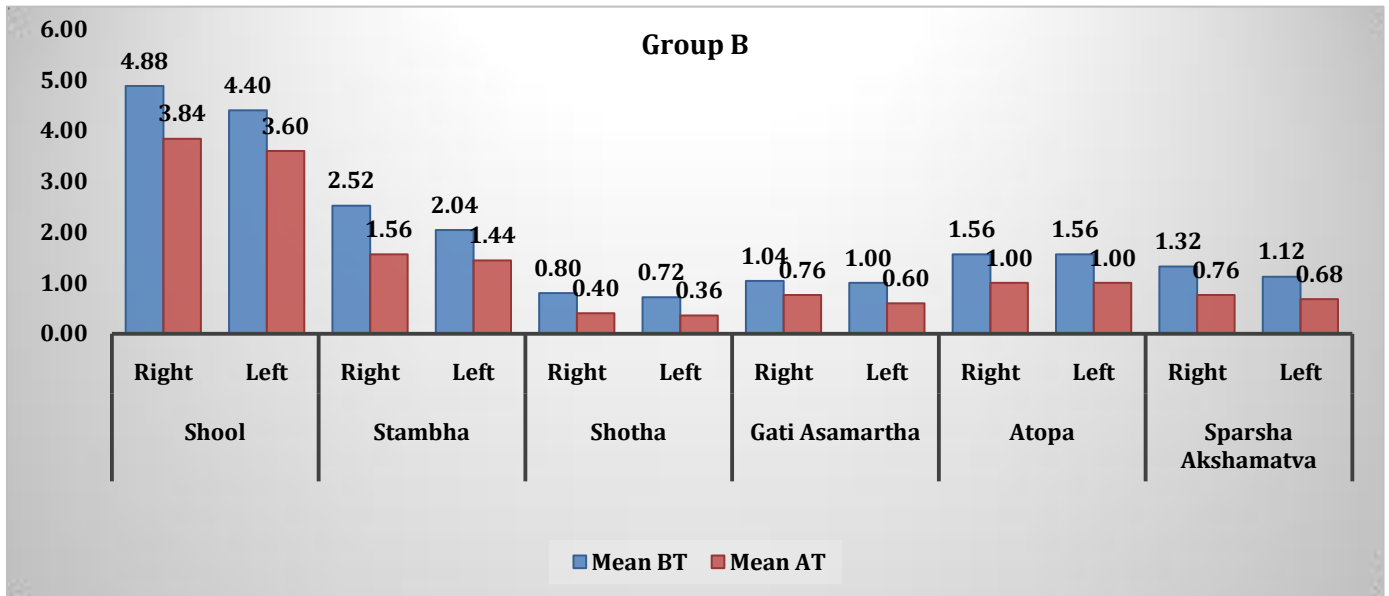
The total effect of therapy (*Janu Basti*) on symptoms of each patient was evaluated before and after completion of the treatment. The initial mean scores of 25 patients for pain in right and left knee joint were 4.88 & 4.40 which were reduced to 3.84 & 3.60 after treatment. The total effect of treatment provided 21.31% and 18.18%. In symptom stiffness in right and left knee joint, the mean scores before treatment were 2.52 & 2.04 which were reduced to 1.56 &1.44 after treatment. The total effect of treatment provided 38.10% & 29.41. In symptom swelling in right and left knee joint, the mean scores before treatment were 0.82&0.72 which were reduced to 0.40 & 0.36 each after treatment. The total effect of treatment provided 50%. ROM in right and left knee joint, the mean scores before treatment were 1.04 & 1.00 which were reduced to 0.76 & 0.60 after treatment. The total effect of treatment provided 26.92% & 40.00%. The initial mean scores for crepitus in right and left knee joint were 1.56 each which were reduced to 1.00 each after treatment. The total effect of treatment provided 35.90% each. In symptom tenderness in right and left knee joint the initial mean scores before treatment were 1.32 & 1.12 which were reduced to 1.32 & 1.12 each after treatment. The total effect of treatment provided 42.42% & 39.29%.

Group A & B Comparison (Subjective Parameters/Objective Parameter)

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value
Shool (Right)	Group A	25	37.16	929.00	21.0000	0.0000
	Group B	25	13.84	346.00		
	Total	50				
Shool (Left)	Group A	25	37.54	938.50	11.5000	0.0000
	Group B	25	13.46	336.50		
	Total	50				
Stambha (Right)	Group A	25	29.40	735.00	215.0000	0.0239
	Group B	25	21.60	540.00		
	Total	50				
Stambha (Left)	Group A	25	31.28	782.00	168.0000	0.0010
	Group B	25	19.72	493.00		
	Total	50				
Shotha (Right)	Group A	25	28.50	712.50	237.5000	0.0093
	Group B	25	22.50	562.50		
	Total	50				
Shotha (Left)	Group A	25	27.72	693.00	257.0000	0.0218
	Group B	25	23.28	582.00		

	Total	50				
Gati Asamartha (Right)	Group A	25	27.64	691.00	259.0000	0.0214
	Group B	25	23.36	584.00		
	Total	50				
Gati Asamartha (Left)	Group A	25	27.64	691.00	259.0000	0.0214
	Group B	25	23.36	584.00		
	Total	50				
Atopa (Right)	Group A	25	31.06	776.50	173.5000	0.0006
	Group B	25	19.94	498.50		
	Total	50				
Atopa (Left)	Group A	25	30.28	757.00	193.0000	0.0030
	Group B	25	20.72	518.00		
	Total	50				
Sparsha Akshamatva (Right)	Group A	25	27.28	682.00	268.0000	0.0312
	Group B	25	23.72	593.00		
	Total	50				
Sparsha Akshamatva (Left)	Group A	25	28.80	720.00	230.0000	0.0067
	Group B	25	22.20	555.00		
	Total	50				

Mann Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that P-Value for all parameters is less than 0.05. Hence, we can conclude that, there is significant difference between Group A and Group B.

Further we can observe that, mean rank for Group A is greater than Group B. Hence, we can conclude that, effect observed in Group A is better than Group B.

Effect

		% Effect	
		Group A	**Group B**
Shool	Right	77.98	21.31
	Left	77.78	18.18
Stambha	Right	75.56	38.10
	Left	73.17	29.41
Shotha	Right	95.31	50.00
	Left	94.64	50.00
Gati Asamartha	Right	44.44	26.92
	Left	50.00	40.00
Atopa	Right	59.09	35.90
	Left	55.81	35.90
Sparsha Akshamatva	Right	95.14	42.42
	Left	95.00	39.29
	Average % Effect	74.49	35.62

Overall effect

In both the groups (A & B) i.e., 32% & 4% patients achieved marked improvement. While 60% & 24% patients found moderate improvement. 8% & 52% patient found mild improvement. No patient found unchanged in group A and 12% patients found unchanged in Group B.

Overall Effect	Group A		Group B	
	N	%	N	%
Marked Improvement	8	32.00%	1	4.00%
Moderate Improvement	15	60.00%	6	24.00%
Mild Improvement	2	8.00%	13	52.00%
No Improvement	0	0.00%	3	12.00%
Total	25	100.00%	25	100.00%
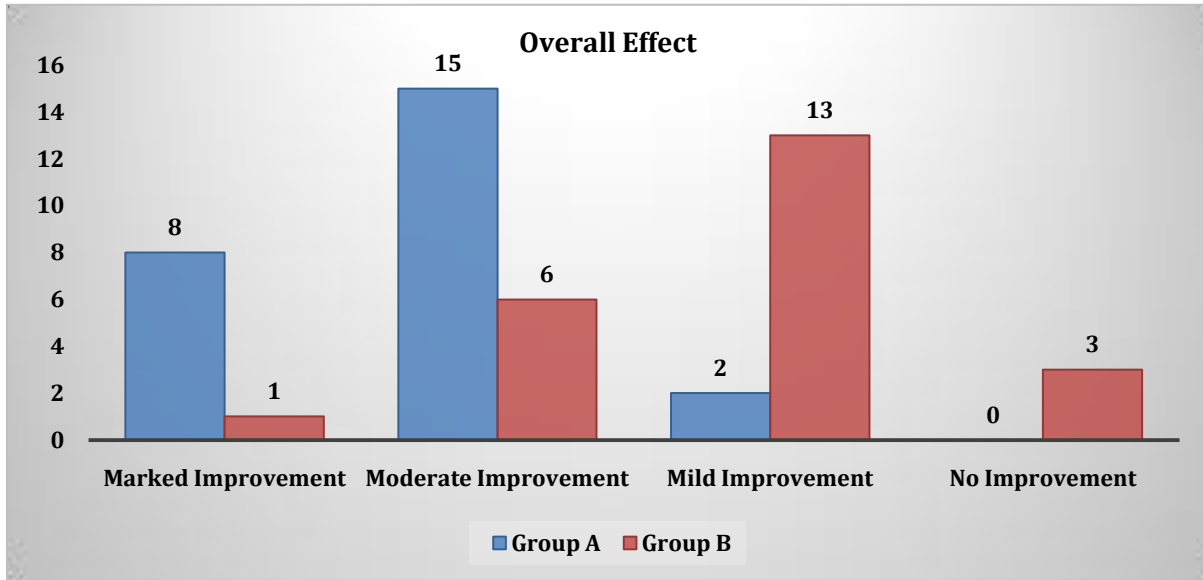
DISCUSSION

In this study 36% patients were found in 61-70 years of age group. According to sex 70% were female patients, which indicate that *Sandhigata Vata* is more common in female. *Prakruti* wise distribution shows that *Vata- Kapha* predominance found in 66% of patients due to *Vata* and also intake of the *Vata Vardhakya Aahara-Vihara* in case of chronicity12%. Patients were found in chronic stage and 88% were having gradual type of onset.

Sandhigata Vata is *Madhyama Roga Marga -Janya Vata Vyadhi* in which vitiate*d Vata* gets lodged in *Sandhi.* Hence to treat *Sandhigata Vata* mode of action of procedure with medicated drugs acting on both *Vata* and *Asthi.*

Janu Sandhigata Vata is considered to be one of the *Vataj* disorder amongst 80 types. Vitiated *Vata* when lodges in the joints, disease is produced. It has been considered by Acharya *Charaka*, *Sushruta* and *Vagbhata* that vitiation of *Vata* takes place most often in old age. *Panchakarma* has a full therapy role as a Promotive, Preventive, Curative & Rehabilitative procedure. *Acharya Charaka* has said that the *Doshas* controlled by *Samshamana* are having the possibility of provocation while there is no such probability in case of the control of the *Doshas* by *Samshodhaneeya*. The patients suffering from *Janu Sandhigata Vata* are treated with *Abhyanga*, *Swedana* and different drugs. *Acharya Charaka* has mentioned to treat the patients of *Janu Sandhigata Vata* with the help of repeated *Abhyanga* and *Swedana. Snehana* and *Swedana* are considered to be the prime modalities of *Chikitsa* in *Vata Vyadhi. Janu Basti* being an innovative procedure evolved from *Shiro Basti* has been studied with various *Sneha Yogas* to conclude remarkable efficacy in the condition of *Janu Sandhigata Vata*. Even though *Upnaha is* a type of *Swedana* for required time period advocates the principle of producing *Sthanik Swedana* effects relieving the *Shoola*, *Sthambha*, *Gaurava* and *Sheeta* to evaluate the efficacy of the same. So, in the current study the main objective was to compare and evaluate the efficacy of *Janu Basti (Sahcharadi Taila)* with *Upnaha Swedana* and *Janu Basti* (*Sahcharadi Taila)* in *Janu Sandhigata Vata*.

Janu Basti is a kind of *Bahya Snehana* procedure. *Snehana* mainly acts against the *Ruksha Guna* caused by *Vata*. It also reduces the *Stambha* and *Gauravata. Acharya Vagbhata* explained the mode of absorption of the drugs applied over the skin. Thus, the *Dravya* used in *Janu Basti* is absorbed through skin and produce an action according to the properties of drug.

Most of ingredients in *Sahcharadi oil* have *Tikta Rasa, Ushna Veerya,* and *Katu Vipaka. The Tikta Rasa* increases the *Dhatwagni* (metabolic disorder). Nutrition of all *Dhatu* will be increased.

CONCLUSION

Janu Basti and Upnaha in Janu Sandhigata Vata (Osteoarthritis of Knees)- The terminal part of study is

nectar of entire research. The research may turn futile if it is without conclusion. The present research can be summarized as - Both *Janu Basti* and *Upnaha Swedana procedures* are safe and effective in *Janu Sandhigata Vata*. There were no adverse effects found in both the groups and required no hospitalization and could be done at the OPD itself. Statistically significant changes observed in the symptoms pain, stiffness, swelling, ROM, crepitus and tenderness in both the groups. The *Masha Pisthi* used for *Janu Basti* and drugs used once taken and continuously used till the third day. On the fourth day those were replaced with fresh ones for the purpose of making the procedure economic. The *Upakarma Janu Basti* certainly shows well-being in *Janu Sandhigata Vata*. On comparison between the procedures *Janu Basti with Upnaha has* got more efficacy than the *Janu Basti* in *Janu Sandhigata Vata*. *Sahcharadi Taila* being a *Sneha*, has *Vatahara* property. *Janu Basti* with *Sahcharadi Taila* acted both as *Snehana* and *Swedana*, along with the combination of pharmacokinetics of the drugs it brought better relief in the signs & symptoms of *Janu Sandhigata Vata*. The procedural differences that it possesses *Janu Basti* with *Upnaha would* have brought about a better resolution on comparison between the procedures. On the basis of above-mentioned effects of *Janu Basti*, it can be concluded that *Janu Basti* for 30 minutes, (once a day) and *Upnaha* for 7 days gives a significant amount of relief in the signs & symptoms of *Janu Sandhigata Vata* in comparison with *Janu Basti* done with *Sahcharadi Taila* for 30 minutes, (twice a day) for 7 days. The data shows that *Janu basti* with *Upnaha* i.e., group A has provided better relief in the disease *Sandhigata Vata* (knee osteoarthritis) in the present history in Group A-

32% patients achieved marked improvement and 60% were having moderately improvement, 8% having mild effect and no patient found unchanged. In Group B 4% patients achieved marked improvement and 24% were having moderately improvement, 52% having mild effect and 12% patient found unchanged.

REFERENCES

1. Acharya Charaka, Charak Samhita, Sutra Sthana, chapter no. 20, Shloka no. 399, edited by Pdt.kashinatha Sastri, Chaukhamba Bharti academy, Page no.399.
2. Acharya Charaka, Charak Samhita, Sutra Sthana, chapter no.11. Shloka no. 48 edited By Pt. Kashinatha Sastri, Chaukhamba Bharati academy. Page no. 235.
3. Acharya Charaka, Charak Samhita Sutra Sthana, chapter no.14. Shloka no.38 Edited by Pt.kashinatha Sastri, Chaukhamba Bharti academy Page no 289.
4. Vaidya Jadavaji trikamji Acharya, Charaka Samhita, Chikitsa Sthana. Chapter 28. Shloka 37. Edition 2009, Chowkhamba Orientale; Delhi, Page no. 697.
5. Pal cp, P, Chaturvedi S, Pruthi KK, VijA, Epidemiology of knee osteoarthritis in India and related factor. Indian J Ortho 2016: 50: 518-22.
6. Arunadatta virachita Sarvang Sundara Vyakhya Ashtanga Hridaya Chap. 21 Shlok no. 67-69, Pg no. 727
7. Krsna Ramchandra Sastri Navre edited by Pt. Hari Sadasiva Sastri Paradakara Bhisagacarya Ashtanga Hridaya Chap no. 17, Shlok no. 2-5 Chaukhambha Bharati Prakashan Pg no. 254

*****Address for correspondence**
Dr. Kiran kumain
PG Scholar,
Dept. of Panchakarma
Patanjali Bhartiya Ayurvigvan Evum, Anusandhan Sansthan, Haridwar, Uttarakhand, India.
Email: kirankumain06@gmail.com